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## ABSTRACT

The document includes tables and graphs showing trends in enrollments (Section 1), expenditures (Section 2), and teachers (Section 3) for the United States and outlying areas. Statistical information was derived from annual reports published by the Division of Vocational and Technical Education and unpublished data compiled by the Program Support Branch from State annual reports and State plan projections. Generally, the actual data, showing trends, cover fiscal years 1971-73, with other selected fiscal years for comparison, while the projected data are for FY 1978. Data indicate that vocational education has grown significantly, particularly after the Vocational Education Amendments of 1968. The full impact of the Act was not apparent until FY 1971, since funds first became available late in FY 1970. In addition to expansion in enrollments and increased expenditures, positive changes have occurred in the quality and scope of vocational programs. New facilities and equipment have been provided, curriculums updated, and improved reporting systems are being developed. (Author/MW)

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## FOREWORD

This document, the second in the "Vocational Education Information" series for fiscal year 1973, includes tables and graphs to show trends in enrollments (Section I), expenditures (Section II), and teachers (Section III) for the United States and outlying areas.

Statistical information was derived from annual reports published by the Division of Vocational and Technical Education and unpublished data compiled by the Program Support Branch from State annual reports and State plan projections. Generally the actual data, showing trends, cover fiscal years 1971-73, with other selected fiscal years for comparison, and the projected data are for fiscal year 1978.

Several changes have occurred during the period in the vocational education reporting system. Consequently, compatible data are not always available. Where adjustments have been made so that data are compatible, explanations are included in the text or in the tables.

The tables and graphs show that vocational education has experienced significant growth, particularly after the Vocational Education Amendments of 1968. The full impact of this Act was not apparent until fiscal year 1971, since funds first became available late in the 1970 fiscal year. In addition to expansion in enrollments and increased expenditures, positive changes have occurred in the quality and scope of vocational programs. New facilities and equipment have been provided, curriculums have been updated, and improvements in the reporting system are developing.

This information on trends should be useful to all persons interested in the nature and scope of vocational education in the United States, and particularly to those individuals involved in program administration.

ORIEANNA C. SYPHAX  
Acting Director  
Division of Vocational  
and Technical Education

June 1974

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## SECTION I. VOCATIONAL EDUCATION ENROLLMENTS

Figures 1 and 2 picture the growth of vocational education enrollments for selected periods. Figure 1 traces enrollment trends from 1918 to 1973, showing the influence of major legislation on enrollment growth. During the 55-year period, enrollments grew from 164,168 to over 12 million. Figure 2 charts the year-to-year changes in enrollments from 1965 through 1973. Large yearly increases in total enrollment occurred in 1965, 1967, and again in 1971. Yearly gains in total enrollment after 1965 were about 500,000 except for increases of about 1 million in 1967, 1970, and 1972 and 1.7 million in 1971.

Table 1 shows that total vocational education enrollments increased from 10,495,411 in 1971 to 12,072,445 in 1973 and is projected to reach 18,482,000 in 1978. The largest percentage increase for any one year was in 1971 when the increase was 19.4 percent. The comparative small rate of increase in 1973 was largely due to a reporting change in one State resulting in a reduction of about 300,000 in enrollment at the secondary level.

Table 1 also shows that the largest percent of the vocational enrollees are in secondary programs, an increase from 51.9 percent in 1965 to 62.3 percent in 1972. Postsecondary enrollment, only 3.8 percent of the 1965 enrollment, passed the 1-million mark in 1970 and currently remains at 11.2 percent of the total. Adult enrollment dropped from 43.8 percent of the 1965 enrollment to 26.4 percent in 1972. The 1978 projection forecasts a declining trend to 23.6 percent. The 1973 percentage distribution was distorted by the one State reporting change noted above.

The first year for reporting services to persons with special needs (disadvantaged and handicapped) was 1965, when 25,638 of these persons were enrolled in separate classes. The 1968 Amendments stipulated programs specifically for the disadvantaged and for the handicapped. Thus, starting in 1970, persons who are disadvantaged or handicapped, receiving special services, are reported separately in parenthesis ( ) but are included in the enrollment levels and the totals.

Table 2 compares secondary vocational enrollment to the total secondary enrollment (grades 9-12 only). Even though total secondary enrollment has stabilized, the number of secondary students enrolled in vocational education continues to increase. In 1973, 41.8 percent of the total secondary population (grades 9-12) was enrolled in programs of vocational education and at the present rate of growth is projected to reach 62.2 percent in 1978. When considering only vocational programs which prepare for gainful employment, enrollment in vocational programs increased from 24.3 percent in 1971 to 27.6 percent in 1973. The recent emphasis on prevocational programs has resulted in an increased number of junior high school enrollments. When relating total secondary vocational enrollments to total secondary population (grades 7-12), we find that 33.5 percent were enrolled, with 22.1 percent in gainful programs in 1973.

Table 3 shows the changing emphasis in vocational education programs. The proportion of students in agricultural production and consumer and homemaking has declined while trades and industry, distribution, health, and gainful home economics are proportionately greater.

Table 4 indicates that the proportion of total enrollment in Standard Metropolitan Statistical Areas has declined from 61.3 percent in 1971 to 57.7 percent in 1973. By comparison the share of expenditures in SMSAs has increased from 53.5 percent in 1971 to 57.4 percent in 1973 to almost balance the enrollment, shown in Table 5.

Table 6 shows the direction of growth in vocational education by OE instructional program. The occupational programs with the largest enrollment (over 100,000) are listed below:

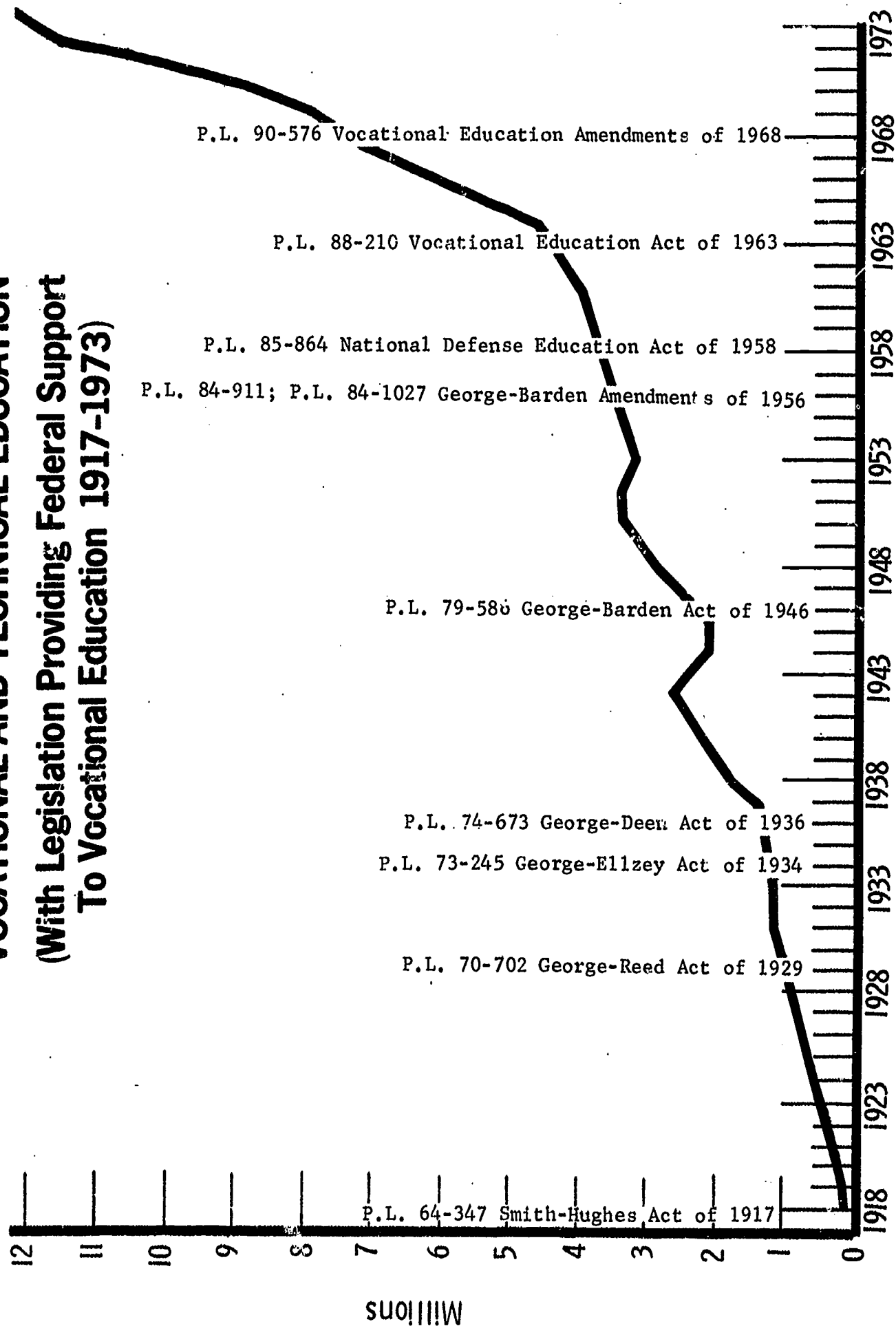
Program	1969 (Prior to 63 Amendments)		1973	
	Number	Rank	Number	Rank
Agricultural Production	645,377	1	561,868	2
Stenographic & Secretarial	482,324	2	606,065	4
Typing and Related	458,714	3	628,758	3
Filing and Office Machines	386,826	4	429,644	5
Metalworking	249,248	5	316,573	7
Accounting and Computing	249,209	6	385,622	6
Business Data Processing	134,723	7	155,804	11
Fireman Training	131,580	8	209,190	10
Auto Mechanics	126,372	9	273,880	8
General Merchandise	120,586	10	239,168	9
Prevocational	-	-	954,461	1

Though not in the top eleven, the following programs attained an enrollment of over 100,000 in 1973: agricultural mechanics, drafting, real estate, foremanship, supervision, and management development, carpentry, electronics occupations, and electrical occupations.

The largest percentage increases in programs from 1971 to 1973 were in floristry, industrial marketing, recreation and tourism, medical laboratory technology, associate degree nurse, occupational therapy assistant, mental health technology, medical assistant, health aide, care and guidance of children, clothing management, home furnishings, institutional and home management, personnel, training and related, automotive technology, environmental control technology, air pollution technology, water and waste water technology, appliance repair, electrical occupations, fabric maintenance, maritime occupations, and small engine repair. The following programs decreased significantly in enrollment: advertising services, international trade, environmental health, business data processing, chemical technology, electrical technology, aviation occupations, industrial atomic energy, materials support, and commercial pilot training.



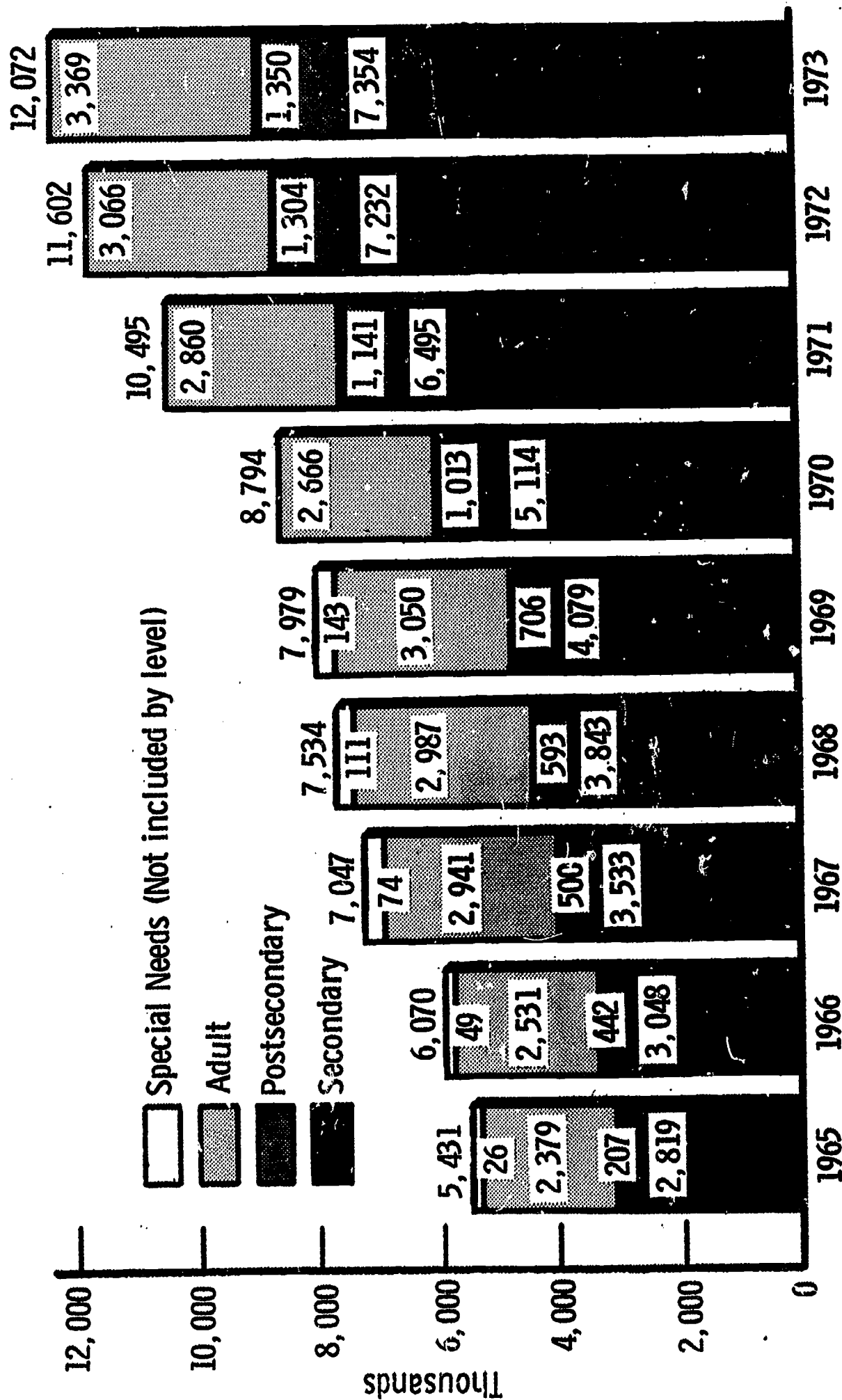
**Figure 1. TOTAL ENROLLMENTS  
VOCATIONAL AND TECHNICAL EDUCATION  
(With Legislation Providing Federal Support  
To Vocational Education 1917-1973)**



SOURCE: Annual Reports, Division of Vocational and Technical Education, 1918-1973.



**Figure 2: TOTAL ENROLLMENTS IN VOCATIONAL EDUCATION 1965-1973**  
(IN THOUSANDS)



SOURCE: Annual Reports, Division of Vocational and Technical Education, 1965-1973.

Table 1. ENROLLMENTS IN VOCATIONAL EDUCATION, BY LEVEL AND TARGET GROUP  
FISCAL YEARS 1971-1978

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> <u>(Projected)</u>
<b>Number</b>				
Total	10,495,411	11,602,144	12,072,445	18,482,000
Secondary	6,494,641	7,231,648	7,353,962	11,052,000
Postsecondary	1,140,943	1,304,092	1,349,731	3,070,000
Adult	2,859,827	3,066,404	3,368,752	4,360,000
Disadvantaged	(1,414,437)	(1,616,621)	(1,601,634)	(2,458,000)
Handicapped	(208,781)	(221,342)	(228,086)	(405,000)
<b>Percentage Distribution</b>				
Total	100.0	100.0	100.0	100.0
Secondary	61.9	62.3	60.9	59.8
Postsecondary	10.9	11.2	11.2	16.6
Adult	27.2	26.4	27.9	23.6
Disadvantaged	(13.5)	(13.9)	(13.3)	(13.3)
Handicapped	(2.0)	(1.9)	(1.9)	(2.2)
<b>Percentage Change From Previous Year</b>				
Total	19.4	10.5	4.1	---
Secondary	26.9	11.3	1.8	---
Postsecondary	12.6	14.3	3.6	---
Adult	7.2	7.2	9.9	---
Disadvantaged	75.6	14.3	-0.8	---
Handicapped	81.1	6.1	3.1	---

Table 2. SECONDARY ENROLLMENT IN VOCATIONAL EDUCATION (GRADES 9-12)  
FISCAL YEARS 1971-1978

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> (Projected)
Total Secondary Enrollment	13,597,000 <u>1/</u>	14,100,000 <u>1/</u>	14,242,000 <u>1/</u>	14,400,000 <u>2/</u>
Vocational Education Enrollment	5,111,273	5,622,777	5,953,962 <u>3/</u>	8,952,000
Percentage in Vocational Education	37.6	39.9	41.8	62.2
Vocational Education Enrollment (less Homemaking)	3,305,856	3,732,835	3,929,093 <u>3/</u>	6,323,000
Percentage in Vocational Education	24.3	26.5	27.6	44.0

- 1/ U.S. Office of Education, National Center for Educational Statistics. Digest of Educational Statistics (74-11103). Washington: U.S. Government Printing Office.
- 2/ U.S. Office of Education, National Center for Educational Statistics. Projections of Educational Statistics to 1981-82 (OE 73-11105). Washington: U.S. Government Printing Office.
- 3/ In 1973 secondary enrollment was not reported by grade. Based on previous years' data, enrollment in grades 9-12 was estimated at about 81 percent of the total secondary enrollment.

Table 3. PERCENTAGE DISTRIBUTION OF ENROLLMENT BY OCCUPATIONAL PROGRAM  
FISCAL YEARS 1971-1978

<u>Program</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> <u>(Projected)</u>
Total	100.0	100.0	100.0	100.0
Agricultural Production	5.2	4.8	4.5	2.8
Off-Farm Agriculture	2.7	2.8	2.9	3.0
Distribution	5.4	5.4	6.0	6.6
Health	2.5	2.8	3.4	4.3
Home Economics (Gainful)	1.8	2.3	2.6	3.2
Office	21.1	20.0	20.8	17.3
Technical	2.9	2.8	2.9	3.1
Trades and Industry	19.7	20.4	21.9	23.3
Consumer and Homemaking	27.8	27.0	25.9	23.1
Special Programs	10.9	11.1	9.0	13.3

Table 4. PERCENTAGE DISTRIBUTION OF ENROLLMENT BY LOCATION  
FISCAL YEARS 1971-1978

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> <u>(Projected)</u>
Total	100.0	100.0	100.0	100.0
SMSA	61.3	59.2	57.7	55.0
Central City	(43.0)	(46.8)	(53.0)	(60.0)
Non-SMSA	38.7	40.8	42.3	45.0

Table 5. PERCENTAGE DISTRIBUTION OF TOTAL EXPENDITURES BY LOCATION  
FISCAL YEARS 1971-1978

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> <u>(Projected)</u>
Total	100.0	100.0	100.0	100.0
SMSA	53.5	56.1	57.4	60.0
Central City	(51.1)	(47.1)	(44.7)	(45.0)
Non-SMSA	46.5	43.9	42.6	40.0

Table 6. ENROLLMENT IN VOCATIONAL EDUCATION BY OE INSTRUCTIONAL PROGRAMS  
FISCAL YEARS 1971-1978

<u>OE Instructional Program</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> (Projected)
Agriculture	845,085	896,460	927,591	1,063,000
Agricultural Production	557,633	564,155	561,868	510,000
Agricultural Supplies	20,583	24,237	27,245	40,000
Agricultural Mechanics	120,745	128,795	144,661	240,000
Agricultural Products	9,235	9,439	11,999	15,000
Ornamental Horticulture	48,267	56,329	70,592	130,000
Agricultural Resources	20,000	24,440	27,520	50,000
Forestry	16,675	17,998	18,617	30,000
Other Agriculture *	53,289	71,070	65,089	48,000
Distribution	578,075	640,423	738,547	1,225,000
Advertising Services	26,748	17,535	20,851	30,000
Apparel and Accessories	20,569	24,798	24,103	34,000
Automotive	7,231	9,640	10,043	20,000
Finance and Credit	23,543	27,996	33,821	60,000
Floristry	3,708	5,231	6,615	15,000
Food Distribution	25,101	29,061	32,345	40,000
Food Services	28,168	34,149	42,707	75,000
General Merchandise	199,728	204,681	239,168	450,000
Hardware, Building Materials, Etc.	5,540	5,725	6,373	14,000
Home Furnishings	4,734	5,874	6,061	12,000
Hotel and Lodging	13,098	12,697	13,468	15,000
Industrial Marketing	8,141	8,627	12,543	15,000
Insurance	14,226	13,132	16,982	20,000
International Trade	1,549	702	889	2,000
Personal Services	13,461	17,836	19,219	25,000
Petroleum	5,087	4,280	5,341	7,000
Real Estate	73,018	82,111	113,153	200,000

\* See footnote at end of table.

Table 6. ENROLLMENT IN VOCATIONAL EDUCATION BY OE INSTRUCTIONAL PROGRAMS (Cont'd)

OE Instructional Program	1971	1972	1973	1978 (Projected)
Recreation and Tourism	10,431	12,782	17,689	50,000
Transportation	12,794	12,447	15,746	20,000
Other Distribution *	81,762	111,119	101,430	121,000
Health	269,546	336,652	421,075	800,000
Dental Assisting	12,189	15,466	16,895	33,000
Dental Hygiene	3,828	4,754	5,523	11,000
Dental Laboratory Technology	2,581	2,948	3,748	7,000
Medical Laboratory Technology	5,650	10,524	11,412	14,000
Other Medical Lab. Technology	7,798	3,156	2,941	5,000
Nursing, Associate Degree	47,090	64,931	77,912	100,000
Practical Nursing	73,372	82,896	93,827	140,000
Nursing Assistant (Aide)	54,868	58,903	74,975	130,000
Occupational Therapy	636	1,504	1,721	4,000
Physical Therapy	1,200	1,501	1,713	3,000
Radiologic Technology	4,868	5,766	7,316	16,000
Environmental Health	2,998	1,401	1,785	4,000
Mental Health Technology	2,380	3,898	6,555	15,000
Inhalation Therapy	3,767	5,759	5,774	13,000
Medical Assistant	7,549	10,326	14,422	28,000
Health Aide	2,282	8,438	10,165	40,000
Other Health Occupations *	38,112	54,724	84,391	237,000
Home Economics (Gainful)	197,422	279,966	322,696	600,000
Care and Guidance of Children	49,338	77,158	83,202	200,000
Clothing Management	39,426	59,524	63,347	120,000
Food Management and Production	67,077	77,594	93,696	150,000
Home Furnishings, Equipment, & Services	11,433	21,278	20,209	50,000
Institutional and Home Management *	6,701	8,061	12,612	20,000
Other Occupational Preparation	23,617	36,648	50,517	60,000

\* See footnote at end of table.

Table 6. ENROLLMENT IN VOCATIONAL EDUCATION BY OE INSTRUCTIONAL PROGRAMS (cont'd)

OE Instructional Program	1978		
	1971	1972	(Projected)
Office Occupations	2,226,854	2,351,878	2,499,095
Accounting and Computing	329,281	351,861	385,622
Business Data Processing Systems	181,313	156,748	155,804
Filing, Office Machines, Clerical	364,274	398,226	429,644
Information Communication	26,788	23,826	29,640
Materials Support, Transporting, Etc.	11,860	10,288	8,636
Personnel, Training, and Related	11,924	13,693	20,631
Stenographic, Secretarial & Related	533,221	550,686	606,065
Supervisory and Administrative	70,050	77,730	84,368
Typing and Related	612,770	628,414	628,758
Other Office Occupations *	88,212	141,300	149,927
Technical	313,860	337,069	364,044
Aeronautical Technology	6,095	5,888	6,090
Architectural Technology	14,716	14,144	16,050
Automotive Technology	5,021	7,453	9,292
Chemical Technology	6,393	5,355	5,029
Civil Technology	19,216	20,113	26,116
Electrical Technology	19,355	15,742	16,510
Electronics Technology	67,335	64,440	68,877
Electromechanical Technology	4,829	4,463	4,366
Environmental Control Technology	2,956	4,634	6,603
Industrial Technology	9,457	11,706	11,018
Instrumentation Technology	4,089	3,084	3,376
Mechanical Technology	25,249	26,395	25,802
Metallurgical Technology	2,779	1,742	2,420
Scientific Data Processing	15,949	16,948	15,849
Commercial Pilot Training	7,381	5,884	5,507
Fire and Safety Technology	8,377	8,826	10,218
Forestry Technology	2,298	2,504	2,097
			5,000
			22,000
			10,000
			20,000
			5,000
			30,000
			5,000
			18,000
			13,000
			10,000
			85,000
			26,000
			50,000
			10,000
			5,029
			26,116
			16,510
			68,877
			4,366
			6,603
			11,018
			3,376
			25,802
			2,420
			15,849
			5,507
			10,218
			2,097
			5,000

\* See footnote at end of table.



Table 6. ENROLLMENT IN VOCATIONAL EDUCATION BY OE INSTRUCTIONAL PROGRAMS (Cont'd)

OE Instructional Program	1971	1972	1973	1978
				(Projected)
Oceanographic Technology	1,664	1,872	2,430	6,000
Police Science Technology	36,099	43,863	53,084	125,000
Air Pollution Technology	356	1,173	763	5,000
Water & Waste Water Technology *	802	1,483	1,298	5,000
Other Technical Education	53,482	69,493	71,245	62,000
Trades and Industry	2,075,166	2,397,968	2,702,238	4,300,000
Air Conditioning	52,575	67,620	63,921	120,000
Appliance Repair	9,474	17,472	14,761	30,000
Body and Fender, Auto	39,703	57,284	54,738	100,000
Mechanics, Auto	176,203	228,364	273,880	500,000
Other Automotive	52,215	39,522	49,525	60,000
Aviation Occupations	33,804	31,780	28,673	30,000
Blueprint Reading	13,694	12,842	12,857	10,000
Business Machine Maintenance	2,854	3,326	3,354	6,000
Commercial Art Occupations	23,983	31,445	31,681	50,000
Commercial Fishery Occupations	3,885	3,203	3,544	7,000
Commercial Photography Occup.	13,570	14,612	19,314	25,000
Carpentry	79,988	95,706	110,181	210,000
Electricity	53,120	60,791	65,997	100,000
Masonry	26,682	29,992	34,593	60,000
Plumbing and Pipefitting	35,420	37,311	40,195	70,000
Other Construction & Maint.	70,813	79,623	107,421	125,000
Custodial Services	16,292	16,267	16,070	20,000
Diesel Mechanic	9,568	13,611	14,072	26,000
Drafting Occupations	134,790	126,750	139,449	165,000
Electrical Occupations	57,865	81,493	105,584	200,000
Electronics Occupations	95,118	97,936	108,373	150,000
Fabric Maintenance Services	3,859	5,939	6,672	9,000
Foremanship, Super., & Mgt. Devel.	88,914	120,820	112,282	200,000

\* See footnote at end of table.

Table 6. ENROLLMENT IN VOCATIONAL EDUCATION BY OE INSTRUCTIONAL PROGRAMS (Cont'd)

OE Instructional Program	1971		1972		1973		1978
							(Projected)
Graphic Arts, Occupations	68,343		68,562		72,061		110,000
Industrial Atomic Energy	492		157		271		1,000
Instrument Maint. & Repair	2,616		3,045		2,971		5,000
Maritime Occupations	4,693		6,755		7,852		15,000
Metalworking Occupations	274,744		291,662		316,573		450,000
Metallurgy Occupations	3,367		5,160		3,707		10,000
Barbering	4,031		3,974		4,399		10,000
Cosmetology	45,045		48,810		56,031		85,000
Other Personal Services	15,985		13,356		14,472		20,000
Plastics Occupations	4,313		5,116		6,526		13,000
Fireman Training	128,822		159,307		209,190		400,000
Law Enforcement Training	65,021		74,801		94,873		175,000
Other Public Services	49,733		58,571		51,220		50,000
Quantity Food Occupations	37,253		37,459		36,961		70,000
Refrigeration	10,036		11,198		8,818		15,000
Small Engine Repair	19,182		26,045		31,915		65,000
Sta. Energy Sources Occupations	7,863		7,502		8,958		15,000
Textile Production & Fabrication	43,753		51,238		59,559		85,000
Leather Working	2,268		2,756		2,805		5,000
Upholstering	11,630		16,549		19,196		45,000
Woodworking Occupations *	53,593		84,709		70,106		150,000
Other Trades and Industry	128,606		146,421		199,368		233,000
Other - Special Programs (Prevocational, Remedial, Pre- postsecondary, and Other)	1,087,270		1,304,619		1,114,265		2,454,000
Consumer and Homemaking	2,932,382		3,165,732		3,193,987		4,270,000
Cooperative - Total Part G	379,840 (70,469)		459,614 (118,924)		508,409 (168,451)		1,000,000 (222,000)
Work-Study	28,726		30,896		33,681		48,000

\* Other new and emerging occupations and cluster programs.

## SECTION II. EXPENDITURES FOR VOCATIONAL EDUCATION

As shown in Figure 3 and Table 7, the funds available for vocational education increased significantly. Federal allotments rose from \$57 million in 1964 (year prior to the Vocational Education Act of 1963) to \$472 million in 1973.

Table 7 showing total expenditures by source of funds reveals that State and local expenditures greatly overmatch the Federal dollar (\$5.29 in 1973). State and local expenditures accounted for more than 80 percent of the total expenditures and in 1973 increased at a rate four times greater than the Federal expenditures.

It should be noted that the Federal funds expended each year prior to 1973 were less than the allotment available. The lateness of appropriations, particularly in 1970, created a backlog in funds carried forward to the next fiscal year which is finally being overcome in 1973. However, the amount of 1973 funds being carried over to 1974 still approximates \$86 million.

Figure 3 shows graphically the increase in total expenditures from 1965 through 1973, including the actual amounts spent by source.

Table 8 shows expenditures and percentage distribution by function. The proportion for instructional salaries constitutes about two-thirds of the total expenditures. Expenditures for other instructional costs, administration and supervision, and instructional equipment rank next, with 13.0 percent, 8.3 percent, and 5.9 percent respectively. Other instructional costs include student transportation, space rental, insurance, teacher travel, and utilities.

Table 9 shows the allocation of Federal funds expended for the various purposes outlined in the 1963 Act, as amended. Of significance is the percentage increase in expenditures for secondary programs (33.1 percent in 1973). Other purposes showing increasing percentages of the total are disadvantaged, handicapped, ancillary services, and guidance and counseling. Postsecondary expenditures remain rather stable at about 23 percent, which is well above the 15 percent required by the legislation. Similarly, expenditures for the disadvantaged exceed the 15-percent minimum but to a lesser degree. Expenditures for the handicapped are only slightly above the 10-percent minimum. Expenditures for construction of area vocational schools declined to about 9 percent. Only a small amount of funds are expended under the contracting provision.

Table 10 indicates total expenditures for all programs allocated to a level of education. In 1973, 65.9 percent of the expenditures were secondary, 27.8 percent postsecondary, and 6.3 percent adult compared to 66.5,

24.2, and 9.3 respectively in 1971. It can be noted that the ratio of Federal funds to State and local funds was somewhat higher for adult than the other levels, 21.6 percent Federal for adult compared with 15.5 percent for secondary and postsecondary.

Table 11 shows total expenditures for all programs allocated by target population and by level. In 1973, 10.3 percent of the expenditures was for the disadvantaged, having increased from 9.3 percent in 1971; and 3.1 percent was for the handicapped, compared with 2.7 percent in 1971. The most significant change from 1971 to 1973 was the decrease in funds for adult disadvantaged programs, and the increase in funds for the handicapped secondary and postsecondary programs and the disadvantaged postsecondary programs.

Table 12 shows a decline in the expenditures for area vocational school construction. Apparently the need for additional facilities has been met in many States and in other States construction is entirely financed with State and local funds. The number of institutions designated as approved area vocational schools, however, continues to increase and in 1973 there were 2,148 such schools.

Table 13 indicates a rather stable expenditure for work-study programs, due to a constant level of appropriations for this purpose.

Table 14 indicates that the expenditures for cooperative programs under Part G of the Act have almost doubled from 1971 to 1973. Even though no matching of Part G funds is required, State in 1973 expended more of their own funds than Federal funds.

Table 7. TOTAL EXPENDITURES FOR VOCATIONAL EDUCATION, BY SOURCE OF FUNDS  
FISCAL YEARS 1971-1978

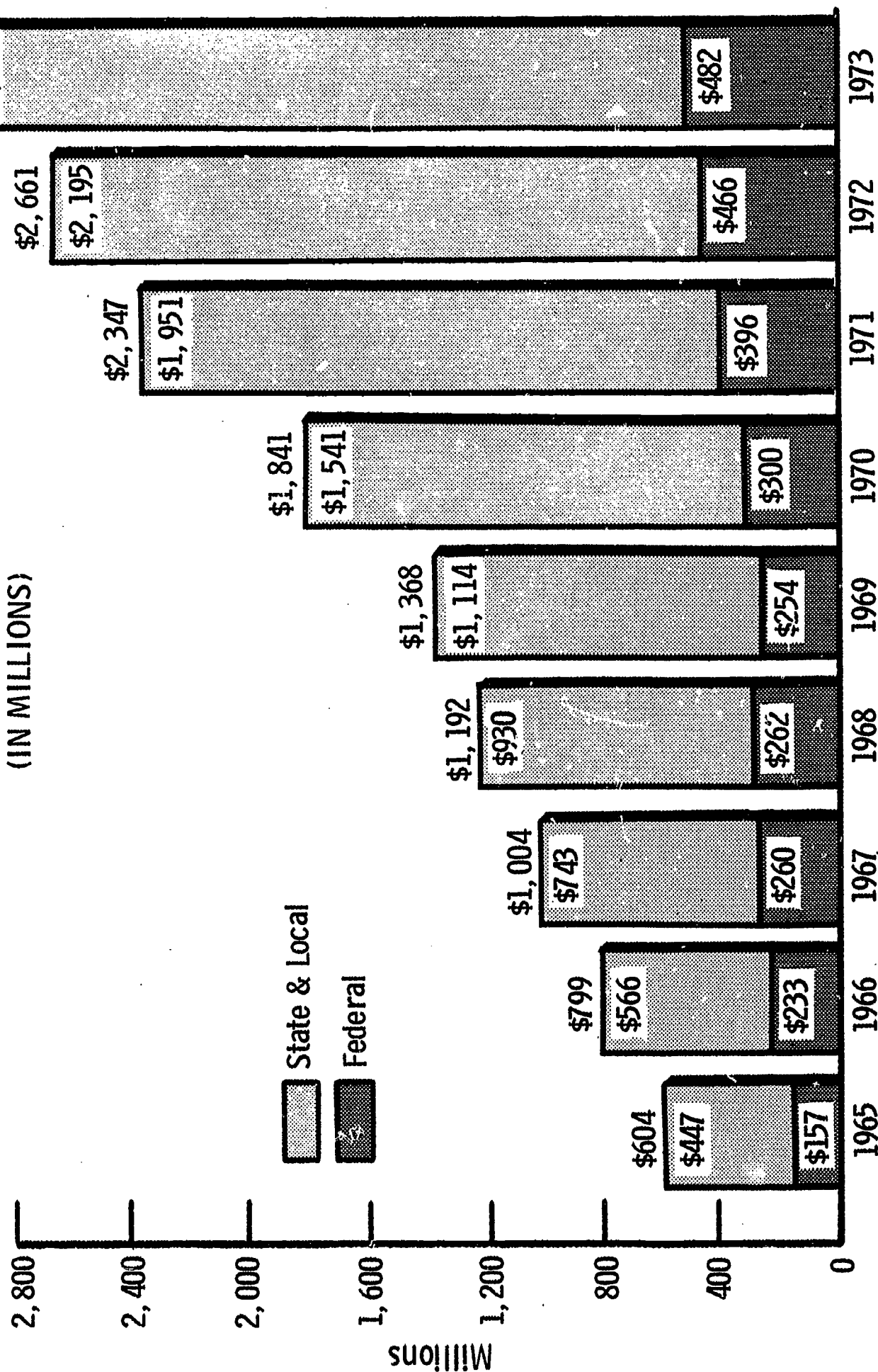
	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> (Projected)
	Amount			
Grand Total	\$2,347,353,175	\$2,660,758,658	\$3,033,657,510	\$6,310,000,000
Federal	396,378,405	466,029,820	482,390,800	972,000,000
State/Local	1,950,974,770	2,194,728,838	2,551,266,710	5,338,000,000
Ratio: State/Local to Federal	\$4.92	\$4.71	\$5.29	\$5.50
	Percentage Distribution			
Grand Total	100.0	100.0	100.0	100.0
Federal	16.9	17.5	15.9	15.4
State/Local	83.1	82.5	84.1	84.6
	Percentage Change from Previous Year			
Grand Total	27.4	13.4	14.0	---
Federal	32.1	17.6	3.5	---
State/Local	26.5	12.5	16.2	---
	Federal Allotment			
Total Allotment	\$412,812,093	\$471,968,455	\$471,968,455	<sup>1/</sup>

<sup>1/</sup> An additional amount of \$77,119,000 was released in Fiscal Year 1974.



**Figure 3: EXPENDITURES FOR VOCATIONAL EDUCATION,  
BY SOURCE OF FUNDS 1965-1973**

(IN MILLIONS)



SOURCE: Annual Reports, Division of Vocational and Technical Education, 1965-1973.

Table 8. TOTAL EXPENDITURES FOR VOCATIONAL EDUCATION, BY FUNCTION <sup>1/</sup>  
FISCAL YEARS 1971-1978  
(In Thousands)

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> <u>(Projected)</u>
	<u>Amount</u>			
Total	\$2,075,881	\$2,410,086	\$2,801,553	\$6,051,000
Instructional Salaries	1,426,330	1,585,709	1,879,306	4,540,000
Instructional Equipment	141,401	147,908	166,351	200,000
Other Instructional Costs	251,114	333,964	364,258	556,000
Vocational Guidance	66,609	89,778	103,754	235,000
Administration & Supervision	142,813	193,900	232,128	350,000
Teacher Education	26,879	31,065	30,580	45,000
Research	12,260	18,462	15,710	90,000
Curriculum Development	8,475	9,300	9,466	35,000
	<u>Percentage Distribution</u>			
Total	100.0	100.0	100.0	100.0
Instructional Salaries	68.7	65.8	67.1	75.0
Instructional Equipment	6.8	6.1	5.9	3.3
Other Instructional Costs	12.1	13.9	13.0	9.2
Vocational Guidance	3.2	3.7	3.7	3.9
Administration & Supervision	6.8	8.0	8.3	5.8
Teacher Education	1.3	1.3	1.1	0.7
Research	0.7	0.8	0.6	1.5
Curriculum Development	0.4	0.4	0.3	0.6

<sup>1/</sup> Excludes construction and work-study.



Table 9. EXPENDITURES FROM VOCATIONAL EDUCATION ACT OF 1963, AS AMENDED, BY PURPOSE  
FISCAL YEARS 1971-1973

	1971		1972		1973	
	Amount	Percent of Total	Amount	Percent of Total	Amount	Percent of Total
Total	\$317,083,369 <sup>1/</sup>	100.0	\$370,132,642 <sup>1/</sup>	100.0	\$387,664,484 <sup>1/</sup>	100.0
Secondary	88,362,942	27.9	109,045,448	29.5	126,531,324	33.1
Postsecondary	72,107,104	22.8	82,229,785	22.2	91,190,849	23.9
Adult	15,983,122	5.1	21,481,578	5.8	19,103,967	5.0
Disadvantaged	51,819,442	16.3	63,565,259	17.2	66,314,918	17.4
Handicapped	33,871,902	10.7	37,899,822	10.2	43,234,940	11.3
Construction	51,477,906	16.2	55,701,484	15.0	35,422,931	9.3
Ancillary Services	(40,072,020)	(12.8)	(50,178,827)	(13.6)	(63,073,834)	(16.3)
Guidance & Counseling	(7,333,812)	(2.3)	(10,141,102)	(2.7)	(11,770,598)	(3.0)
Contracted Instruction	(1,488,325)	(0.5)	(506,951)	(0.1)	(1,348,467)	(0.3)

Memo amounts in ( ) are expended by level or target group.

<sup>1/</sup> Total not sum of purposes due to the inability of a few States to allocate ancillary services by level.

Table 10. EXPENDITURES FOR VOCATIONAL EDUCATION, BY LEVEL AND SOURCE  
FISCAL YEARS 1971-1978  
(In Thousands)

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> <u>(Projected)</u>
Secondary	\$1,560,889	\$1,752,449	\$1,998,732	\$4,377,000
Federal	250,328	296,347	310,292	680,000
State/Local	1,310,561	1,456,102	1,688,440	3,697,000
Postsecondary	566,978	707,163	843,402	1,538,000
Federal	110,046	123,567	130,597	240,000
State/Local	455,932	583,596	712,805	1,298,000
Adult	218,194	196,514	191,528	395,000
Federal	33,719	44,092	41,373	84,000
State/Local	184,475	152,422	150,155	311,000

Table 11. TOTAL EXPENDITURES FOR VOCATIONAL EDUCATION, BY TARGET GROUP & LEVEL  
FISCAL YEARS 1971-1978  
(In Thousands)

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> <u>(Projected)</u>
Disadvantaged	\$ 219,127	\$ 290,074	\$ 312,135	\$ 900,000
Secondary	147,792	214,190	239,425	690,000
Postsecondary	31,460	37,768	43,725	126,000
Adult	39,875	38,116	28,985	84,000
Handicapped	62,983	67,467	94,074	205,000
Secondary	46,353	54,731	76,617	167,000
Postsecondary	9,618	8,022	12,629	27,000
Adult	7,012	4,714	4,828	11,000
Regular	2,063,959	2,298,585	2,627,453	5,205,000
Secondary	1,366,744	1,483,527	1,682,690	3,331,000
Postsecondary	525,908	661,374	787,048	1,562,000
Adult	171,307	153,684	157,715	312,000

Table 12. NUMBER OF AREA VOCATIONAL SCHOOLS AND EXPENDITURES  
FOR CONSTRUCTION OF FACILITIES  
FISCAL YEARS 1971-1973  
(In Thousands)

	<u>1971</u>	<u>1972</u>	<u>1973</u>
Number of Approved Area Vocational Schools	1,676	1,889	2,148
Number of Construction Projects	400	436	368
Expenditures - Total	\$317,569	\$265,158	\$228,186
VEA	51,478	55,701	35,423
211	24,817	20,866	21,592
214	7,465	6,900	6,147
EDA	7,317	6,738	5,465
State/Local	226,492	174,953	159,560

Table 13. EXPENDITURES FOR VOCATIONAL WORK-STUDY PROGRAMS  
FISCAL YEARS 1971-1973

	<u>1971</u>	<u>1972</u>	<u>1973</u>
Total	\$9,042,766	\$11,409,966	\$9,777,319
Federal	5,783,711	6,289,386	6,163,959
State/Local	3,259,055	5,120,580	3,613,360

Table 14. EXPENDITURES FOR COOPERATIVE EDUCATION PROGRAMS UNDER PART C  
FISCAL YEARS 1971-1973

	<u>1971</u>	<u>1972</u>	<u>1973</u>
Total	\$28,025,961	\$32,797,274	\$48,822,802
Federal	17,585,628	19,948,690	21,709,942
State/Local	10,440,333	12,848,584	27,112,860

### SECTION III. TEACHERS IN VOCATIONAL EDUCATION

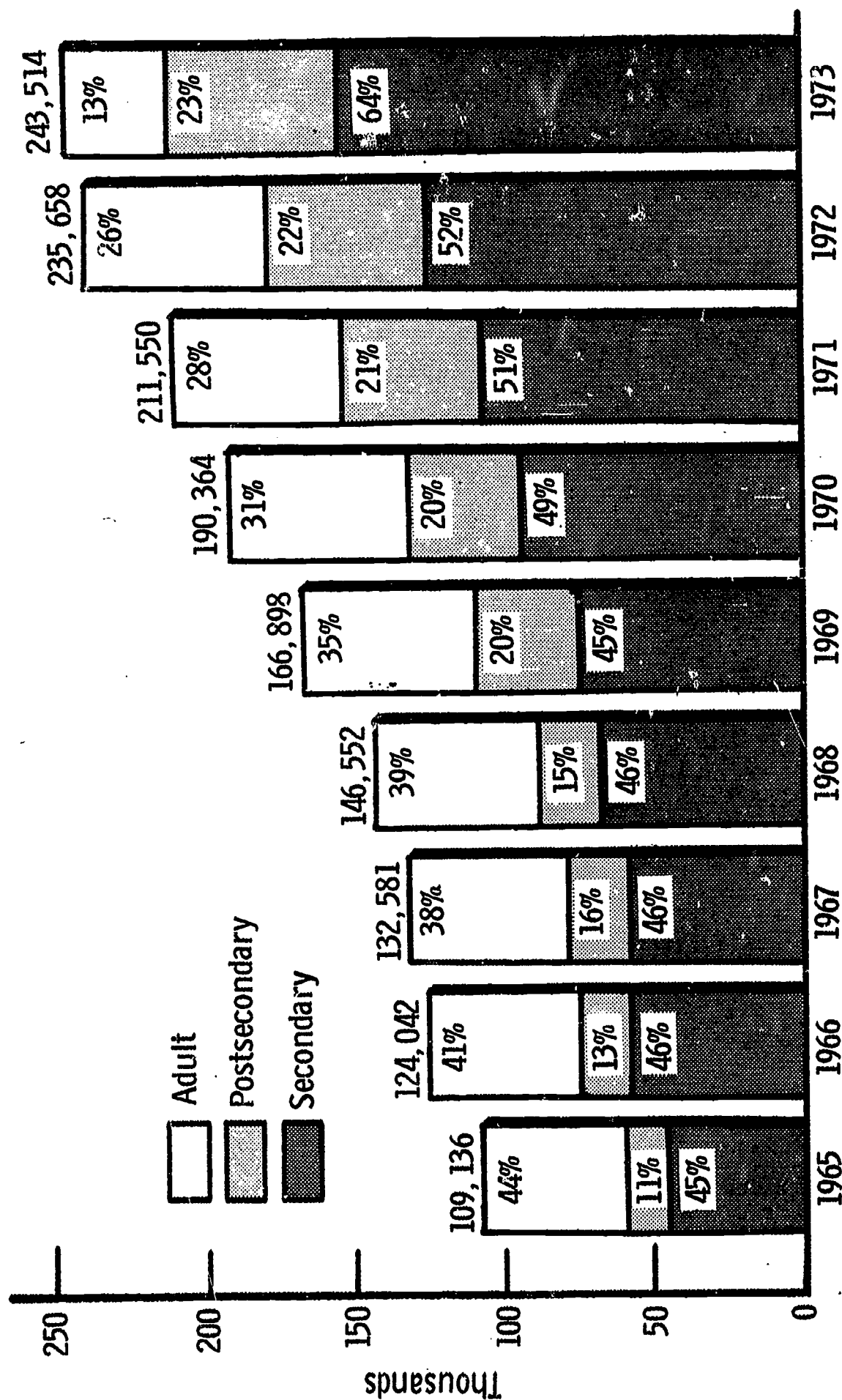
In Figure 4, the growth in the number of teachers from 1965 through 1973 is presented graphically. The number of individual teachers in vocational education grew from 109,136 in 1965 to 243,514 in 1973. Due to a change in reporting, data for 1973, as shown in Table 15, are not entirely compatible with prior years. Data on secondary and postsecondary teachers are reported by full-time equivalency rather than the number of full-time and part-time teachers. Accordingly, the percentage distribution by level in 1973 reflects a much higher percentage of teaching devoted to secondary and a proportionate reduction in adult education where most teachers serve on a part-time basis. The number of teachers for the disadvantaged in 1973 is almost double the number in 1971 and the number of teachers for the handicapped more than doubled.

In Table 16, it is noted that the number of enrollees in preservice training leveled off at about 60,000 while enrollees in inservice training showed a substantial increase in 1973 to over 90,000.

Table 17 shows the number and distribution of teachers by program. Trades and industry accounts for the largest number of teachers, followed by office education and home economics. Significant and steady growth in number of teachers occurred in all programs except agriculture which declined from 1965 to 1969 and technical which declined in 1973. Percentages of the total number of teachers in distribution and trades and industry show little change from 1965 to 1973. Health and office doubled in proportion to the total and agriculture, technical, and home economics showed decreases in percentages during the 9-year period.

Figure 5 shows the total number of teachers in preservice and inservice teacher-education programs from 1965 through 1973.

**Figure 4: TEACHERS OF VOCATIONAL EDUCATION, BY LEVEL  
FISCAL YEARS 1965-1973**



SOURCE: Annual Reports, Division of Vocational and Technical Education,

1965-1973. NOTE: Percentage calculated on full-time equivalent in 1973 instead of number of teachers.

Table 15. TEACHERS OF VOCATIONAL EDUCATION, BY LEVEL  
FISCAL YEARS 1971-1978

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> (Projected)
	<u>Number</u>			
Total (Unduplicated)	211,550	235,658	243,514	357,000
Secondary	118,919	131,404	112,663.7 <sup>1/</sup>	200,000
Postsecondary	48,874	56,311	40,626.5 <sup>1/</sup>	90,000
Adult	63,583	67,242	73,900	95,000
Disadvantaged	(11,933)	(15,007)	(20,638)	(45,000)
Handicapped	(3,609)	(4,919)	(7,376)	(15,000)
	<u>Percentage Distribution</u>			
Total	100.0	100.0	100.0 <sup>2/</sup>	100.0
Secondary	51.4	51.5	64.0	56.0
Postsecondary	21.1	22.1	23.1	25.2
Adult	27.5	26.4	12.9	26.6
Disadvantaged	(5.6)	(6.4)	(8.5)	(12.6)
Handicapped	(1.7)	(2.1)	(3.0)	(4.2)

<sup>1/</sup> Teachers reported by Full-Time Equivalent.

<sup>2/</sup> Percentage by level based on F.T.E. Adult is estimated at 22,717.0 F.T.E.

Table 16. ENROLLMENTS IN TEACHER EDUCATION  
FISCAL YEARS 1971-1978

	<u>1971</u>	<u>1972</u>	<u>1973</u>	<u>1978</u> (Projected)
Preservice	52,753	60,759	59,288	80,500
Inservice	80,746	80,569	91,894	120,000

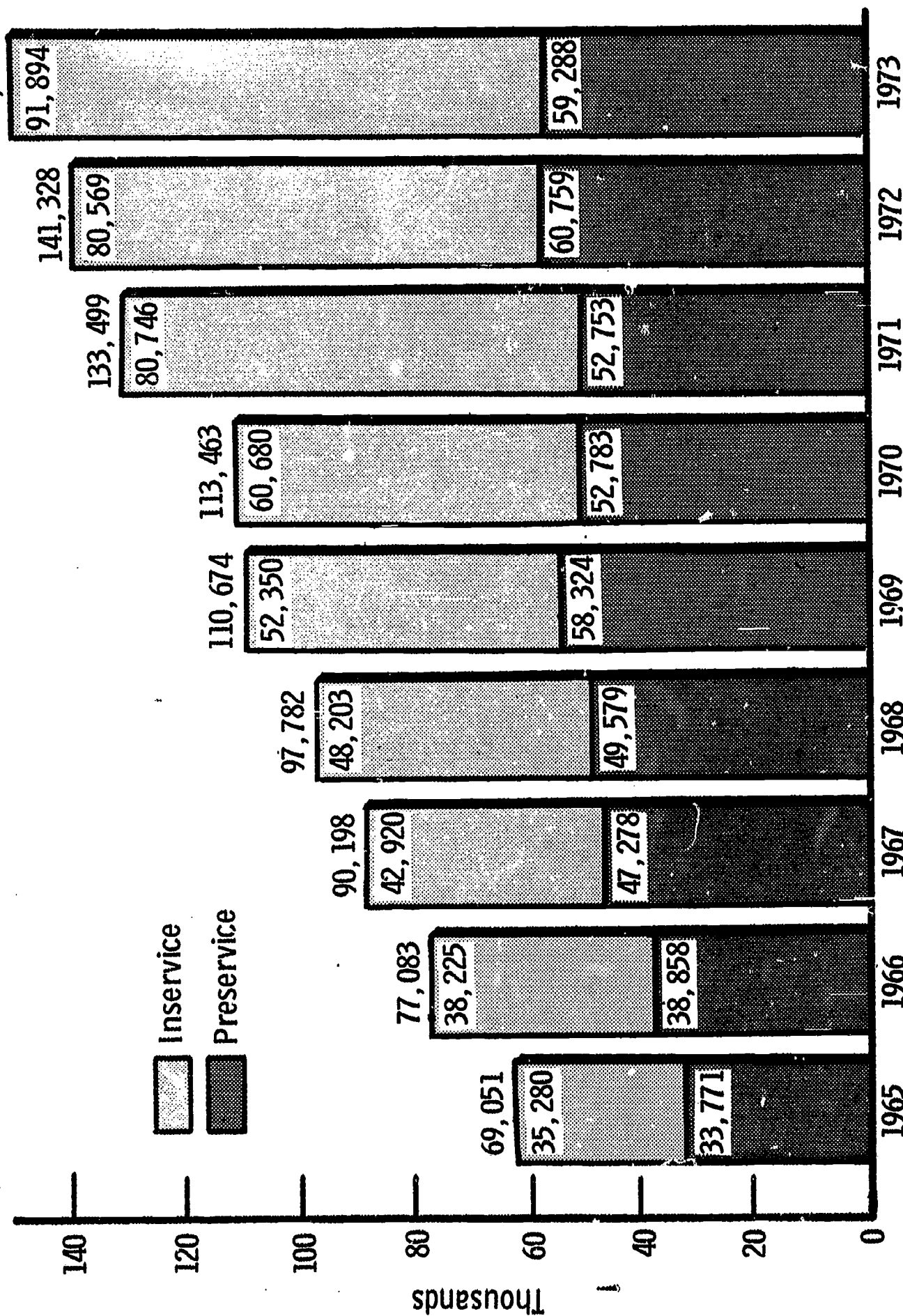
Table 17. TEACHERS OF VOCATIONAL EDUCATION, BY PROGRAM  
FISCAL YEARS 1965-1973

	<u>1965</u>	<u>1969</u>	<u>1971</u>	<u>1972</u>	<u>1973</u>
	Number				
Total (Unduplicated)	109,136	166,898	211,550	235,658	243,514
Agriculture	17,608	12,565	12,910	13,270	13,812
Distribution	7,200	9,741	11,974	13,795	14,804
Health	3,429	8,876	12,613	14,552	16,780
Home Economics	31,243	31,845	38,105	41,547	44,678
Office	15,850	37,923	49,363	52,662	54,917
Technical	9,213	13,488	14,750	16,820	13,658
Trades and Industry	39,804	50,592	59,065	65,105	70,848
Other	488	2,087	6,540 <sup>1/</sup>	6,369 <sup>1/</sup>	4,945 <sup>1/</sup>
	Percentage Distribution				
Total	100.0	100.0	100.0	100.0	100.0
Agriculture	15.1	7.5	6.3	5.9	5.9
Distribution	5.9	5.8	5.8	6.2	6.3
Health	2.8	5.3	6.1	6.5	7.2
Home Economics	23.9	19.1	18.6	18.5	19.1
Office	12.7	22.7	24.0	23.5	23.4
Technical	6.9	8.1	7.2	7.5	5.8
Trades and Industry	30.8	30.3	28.8	29.1	30.2
Other	1.9	1.2	3.2	2.8	2.1

<sup>1/</sup> Includes only teachers in occupational programs. Unduplicated total includes also teachers in special programs: 30,418 in 1971; 37,562 in 1972; and 54,857 in 1973.



**Figure 5: ENROLLMENTS IN TEACHER EDUCATION 1965-1973**



SOURCE: Annual Reports, Division of Vocational and Technical Education, 1965-1973.